FOERSTER

DEFECTOMETER

Compact mobile crack testing device for aircraft, automotive, and infrastructure components

DEFECTOMETER

Compact mobile crack testing device for aircraft, automotive, and infrastructure components

Mobile eddy current testing for crack detection, hardness testing, and material inspection. The DEFECTOMETER M 1.837 is designed for mobile eddy current inspections on metallic components. With a defect resolution starting at 20 µm, the device enables reliable detection of surface cracks, material defects, and hardness variations.

The compact testing device is used in the aerospace, automotive, and infrastructure industries, for example for inspecting turbine blades, wheels, rivets, bridges, rails, or gas pipelines. In addition, the system is suitable for material sorting, determining different surface hardness levels, and detecting as well as measuring crack depths in semi-finished products.

The non-destructive eddy current testing method is based on alternating electromagnetic fields that generate eddy currents in the test material. Defects or material irregularities alter the eddy current behavior and can therefore be reliably detected.

The LED scale display and LCD screen ensure excellent readability in bright daylight as well as in dark environments. Automatic lift-off, zero, and tilt compensation support stable and reproducible measurement results even under difficult inspection conditions. The intuitive operating structure enables quick and easy use for mobile inspection tasks.

With up to 35 hours of operating time, an ergonomic one-handed design, integrated reference standard, and USB interface for documenting inspection results, the DEFECTOMETER M 1.837 is especially suitable for mobile inspection applications.

YOUR ADVANTAGES AT A GLANCE

High inspection sensitivity: Defect resolution from 20 µm for detecting fine surface cracks

Versatile testing applications: Suitable for crack detection, hardness testing, and material inspection

Reproducible results: Automatic lift-off, zero, and tilt compensation, plus warning function when the probe loses contact

Optimal readability: LED scale display and LCD screen for bright and dark environments

Mobile operation: Up to 35 hours of battery life with backlight enabled

Easy handling: Ergonomic design and intuitive user interface for comfortable one-handed operation

Flexible inspection tasks: Five probe types, integrated calibration standard, and compatibility with existing DEFECTOMETER probes

Digital documentation: USB interface for visualization and storage of inspection results

TECHNICAL INFORMATION

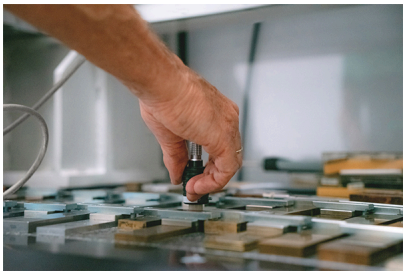
FLAW DETECTION:	>20 µm crack depth
SENSITIVITY RANGE:	20 dB in steps of 0.5 dB
FLAW THRESHOLD:	-99 % to +99 % in steps of 1 % in combination with red LED and acoustic indicator
ZERO OFFSET:	0 – 99 %
LIFT OFF WARNING:	LED and acoustic
INSPECTION SPEED:	0 – 0.15 m/s
BATTERIES:	6 NiMH rechargeable battery type AA or standard batteries
BATTERY CHARGER:	Integrated into device
POWER SUPPLY:	110 – 240 V
SERIAL INTERFACE:	USB
OPERATION TIME:	35 hours (with NiMH rechargeable battery)
RANGE OF OPERATION TEMPERATURE:	-10 to +55 °C
DIMENSIONS:	81 × 178 × 42 mm (W × H × D)
WEIGHT:	400g
ACCESSORIES:	— Universal power supply — Carrying bag (1.837.01-7200) — Holding device (1.837.01-7400) — Headphones foldable (1.837.01-7400) — PC Software (1.837.01-8200) — Airbus HFEC Inspection Kit (1.837.69-0038)

ACCESSORIES

DEFECTOMETER M PROBES
Flexible Probe Solutions for Mobile Eddy Current Testing

REFERENCE CRACK STANDARD - FLAT (PLATE)
Artificial crack defect standard for setting and verifying test sensitivity

REFERENCE DEFECT STANDARDS - BOREHOLE
Reference defects for calibration of inspection systems using rotating probes



RECALIBRATION OF MOBILE PRODUCTS
Recalibration guarantees the accuracy and quality of your test and measurement values

foerstergroup.com

The FOERSTER Group is represented by subsidiaries and representatives in over 60 countries worldwide. You can find a complete overview on our website.

Headquarters
Institut Dr. Foerster GmbH & Co. KG

In Laisen 70
72766 Reutlingen
Germany

+49 7121 140 0
info@foerstergroup.com

© Copyright 2026 – Copyright notice: All contents of this work, in particular texts, photographs and graphics, are protected by copyright. Unless explicitly stated otherwise, the copyright lies with Institut Dr. Foerster GmbH & Co. KG. Please contact us if you wish to use any part of this work.

Generated: 2026-10-16 18:11:28